SEQUENCE LISTING

<110> Ryan, James W.

<120> Genomic Polynucleotide Fragments From Chromosome 7

<130> JR-14,000-US

<150> US 60/234,422
<151> 2001-09-21

<160> 8

<170> PatentIn version 3.1

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Val Leu Leu Lys Ala Ala Tyr Asp Val Ser Ser Phe Ser Phe Phe Gln
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Arg Ser Ser Val Gln Glu Phe Met Thr Phe Thr Ser Gln Leu Ile Val
        35   40   45

Glu Arg Ser Ser Lys Gly Thr Arg Ala Ser Val Lys Glu Gln Asp Tyr
    50   55   60

Leu Cys His Val Tyr Val Arg Asn Asp Ser Leu Ala Gly Val Val Ile
65   70   75   80

Ala Asp Asn Glu Tyr Pro Ser Arg Val Ala Phe Thr Leu Leu Glu Lys
                85   90   95

Val Leu Asp Glu Phe Ser Lys Gln Val Asp Arg Ile Asp Trp Pro Val
            100   105   110

Gly Ser Pro Ala Thr Ile His Tyr Pro Ala Leu Asp Gly His Leu Ser
            115   120   125

Arg Tyr Gln Asn Pro Arg Glu Ala Asp Pro Met Thr Lys Val Gln Ala
    130   135   140

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Glu Leu Asp Glu Thr Lys Ile Ile Leu His Asn Thr Met Glu Ser Leu
145             150             155             160


Leu Glu Arg Gly Glu Lys Leu Asp Asp Leu Val Ser Lys Ser Glu Val
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Leu Gly Thr Gln Ser Lys Ala Phe Tyr Lys Thr Ala Arg Lys Gln Asn
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Ser Cys Cys Ala Ile Met
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                20              25              30


Met Arg Arg Met Gln Lys Glu Met Asp Arg Gly Leu Arg Leu Glu Thr
            35              40              45


His Glu Glu Ala Ser Val Lys Met Leu Pro Thr Tyr Val Arg Ser Thr
    50              55              60


Pro Glu Gly Ser Glu Val Gly Asp Phe Leu Ser Leu Asp Leu Gly Gly
65              70              75              80


Thr Asn Phe Arg Val Met Leu Val Lys Val Gly Glu Gly Glu Glu Gly
            85              90              95


Gln Trp Ser Val Lys Thr Lys His Gln Thr Tyr Ser Ile Pro Glu Asp
                100             105             110


Ala Met Thr Gly Thr Ala Glu Met Leu Phe Asp Tyr Ile Ser Glu Cys
            115             120             125


Ile Ser Asp Phe Leu Asp Lys His Gln Met Lys His Lys Lys Leu Pro
    130             135             140
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Leu Gly Phe Thr Phe Ser Phe Pro Val Arg His Glu Asp Ile Asp Lys
145             150             155             160

Gly Ile Leu Leu Asn Trp Thr Lys Gly Phe Lys Ala Ser Gly Ala Glu
            165             170             175

Gly Asn Asn Val Val Gly Leu Leu Arg Asp Ala Ile Lys Arg Arg Gly
            180             185             190

Asp Phe Glu Met Asp Val Val Ala Met Val Asn Asp Thr Val Ala Thr
            195             200             205

Met Ile Ser Cys Tyr Tyr Glu Asp His Gln Cys Glu Val Gly Met Ile
    210             215             220

Val Gly Thr Gly Cys Asn Ala Cys Tyr Met Glu Glu Met Gln Asn Val
225             230             235             240

Glu Leu Val Glu Gly Asp Glu Gly Arg Met Cys Val Asn Thr Glu Trp
            245             250             255

Gly Ala Phe Gly Asp Ser Gly Glu Leu Asp Glu Phe Leu Leu Glu Tyr
            260             265             270

Asp Arg Leu Val Asp Glu Ser Ser Ala Asn Pro Gly Gln Gln Leu Tyr
    275             280             285

Glu Lys Leu Ile Gly Gly Lys Tyr Met Gly Glu Leu Val Arg Leu Val
    290             295             300

Leu Leu Arg Leu Val Asp Glu Asn Leu Leu Phe His Gly Glu Ala Ser
305             310             315             320

Glu Gln Leu Arg Thr Arg Gly Ala Phe Glu Thr Arg Phe Val Ser Gln
            325             330             335

Val Glu Ser Asp Thr Gly Asp Arg Lys Gln Ile Tyr Asn Ile Leu Ser
            340             345             350

Thr Leu Gly Leu Arg Pro Ser Thr Thr Asp Cys Asp Ile Val Arg Arg
    355             360             365

Ala Cys Glu Ser Val Ser Thr Arg Ala Ala His Met Cys Ser Ala Gly
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Leu Ala Gly Val Ile Asn Arg Met Arg Glu Ser Arg Ser Glu Asp Val
385   390   395   400

Met Arg Ile Thr Val Gly Val Asp Gly Ser Val Tyr Lys Leu His Pro
            405   410   415

Ser Phe Lys Glu Arg Phe His Ala Ser Val Arg Arg Leu Thr Pro Ser
            420   425   430

Cys Glu Ile Thr Phe Ile Glu Ser Glu Glu Gly Ser Gly Arg Gly Ala
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Ala Leu Val Ser Ala Val Ala Cys Lys Lys Ala Cys Met Leu Gly Gln
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Glu Ile Glu Glu Phe Leu Glu Gly Phe Leu Ser Glu Leu Glu Pro Glu
        35   40   45

Pro Arg Glu Asp Asp Val Glu Ala Pro Pro Pro Glu Pro Thr Pro
    50   55   60

Arg Val Arg Lys Ala Gln Ala Gly Gly Lys Pro Gly Lys Arg Pro Gly
65   70   75   80

Thr Ala Ala Glu Val Pro Pro Glu Lys Thr Lys Asp Lys Gly Lys Lys
            85   90   95

Gly Lys Lys Asp Lys Gly Pro Lys Val Pro Lys Glu Ser Leu Glu Gly
            100   105   110

Ser Pro Arg Pro Pro Lys Lys Gly Lys Glu Lys Pro Pro Lys Ala Thr
        115   120   125

Lys Lys Pro Lys Glu Lys Pro Pro Lys Ala Thr Lys Lys Pro Lys Glu
        130   135   140

Glu Pro Pro Lys Ala Thr Lys Lys Pro Lys Glu Lys Pro Pro Lys Ala
145   150   155   160

Thr Lys Lys Pro Pro Ser Gly Lys Arg Pro Pro Ile Leu Ala Pro Ser
            165   170   175

Glu Thr Leu Glu Trp Pro Leu Pro Pro Pro Ser Pro Gly Pro Glu
            180   185   190

Glu Leu Pro Gln Glu Gly Gly Ala Pro Leu Ser Asn Asn Trp Gln Asn
        195   200   205

Pro Gly Glu Glu Thr His Val Glu Ala Gln Glu His Gln Pro Glu Pro
        210   215   220

Glu Glu Glu Thr Glu Gln Pro Thr Leu Asp Tyr Asn Asp Gln Ile Glu
225   230   235   240

Arg Glu Asp Tyr Glu Asp Phe Glu Tyr Ile Arg Arg Gln Lys Gln Pro
            245   250   255

Arg Pro Pro Pro Ser Arg Arg Arg Pro Glu Arg Val Trp Pro Glu
            260   265   270

Pro Pro Glu Glu Lys Ala Pro Ala Pro Ala Pro Glu Glu Arg Ile Glu
        275   280   285

Pro Pro Val Lys Pro Leu Leu Pro Pro Leu Pro Pro Asp Tyr Gly Asp
        290   295   300

Gly Tyr Val Ile Pro Asn Tyr Asp Asp Met Asp Tyr Tyr Phe Gly Pro
305   310   315   320

Pro Pro Pro Gln Lys Pro Asp Ala Glu Arg Gln Thr Asp Glu Glu Lys
            325   330   335

Glu Glu Leu Lys Lys Pro Lys Lys Glu Asp Ser Ser Pro Lys Glu Glu
            340   345   350

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Thr Asp Lys Trp Ala Val Glu Lys Gly Lys Asp His Lys Glu Pro Arg
        355             360             365

Lys Gly Glu Glu Leu Glu Glu Glu Trp Thr Pro Thr Glu Lys Val Lys
        370             375             380

Cys Pro Pro Ile Gly Met Glu Ser His Arg Ile Glu Asp Asn Gln Ile
385             390             395             400

Arg Ala Ser Ser Met Leu Arg His Gly Leu Gly Ala Gln Arg Gly Arg
            405             410             415

Leu Asn Met Gln Thr Gly Ala Thr Glu Asp Asp Tyr Tyr Asp Gly Ala
            420             425             430

Trp Cys Ala Glu Asp Asp Ala Arg Thr Gln Trp Ile Glu Val Asp Thr
        435             440             445

Arg Arg Thr Thr Arg Phe Thr Gly Val Ile Thr Gln Gly Arg Asp Ser
        450             455             460

Ser Ile His Asp Asp Phe Val Thr Thr Phe Phe Val Gly Phe Ser Asn
465             470             475             480

Asp Ser Gln Thr Trp Val Met Tyr Thr Asn Gly Tyr Glu Glu Met Thr
            485             490             495

Phe His Gly Asn Val Asp Lys Asp Thr Pro Val Leu Ser Glu Leu Pro
            500             505             510

Glu Pro Val Val Ala Arg Phe Ile Arg Ile Tyr Pro Leu Thr Trp Asn
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Gly Ser Leu Cys Met Arg Leu Glu Val Leu Gly Cys Ser Val Ala Pro
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Val Tyr Ser Tyr Tyr Ala Gln Asn Glu Val Val Ala Thr Asp Asp Leu
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Asp Phe Arg His His Ser Tyr Lys Asp Met Arg Gln Leu Met Lys Val
            565             570             575
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Val Asn Glu Glu Cys Pro Thr Ile Thr Arg Thr Tyr Ser Leu Gly Lys
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Ser Ser Arg Gly Leu Lys Ile Tyr Ala Met Glu Ile Ser Asp Asn Pro
        595               600               605

Gly Glu His Glu Leu Gly Glu Pro Glu Phe Arg Tyr Thr Ala Gly Ile
    610               615               620

His Gly Asn Glu Val Leu Gly Arg Glu Leu Leu Leu Leu Leu Met Gln
625               630               635               640

Tyr Leu Cys Arg Glu Tyr Arg Asp Gly Asn Pro Arg Val Arg Ser Leu
            645               650               655

Val Gln Asp Thr Arg Ile His Leu Val Pro Ser Leu Asn Pro Asp Gly
        660               665               670

Tyr Glu Val Ala Ala Gln Met Gly Ser Glu Phe Gly Asn Trp Ala Leu
    675               680               685

Gly Leu Trp Thr Glu Glu Gly Phe Asp Ile Phe Glu Asp Phe Pro Asp
    690               695               700

Leu Asn Ser Val Leu Trp Gly Ala Glu Glu Arg Lys Trp Val Pro Tyr
705               710               715               720

Arg Val Pro Asn Asn Asn Leu Pro Ile Pro Glu Arg Tyr Leu Ser Pro
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Asp Ala Thr Val Ser Thr Glu Val Arg Ala Ile Ile Ala Trp Met Glu
        740               745               750

Lys Asn Pro Phe Val Leu Gly Ala Asn Leu Asn Gly Gly Glu Arg Leu
        755               760               765

Val Ser Tyr Pro Tyr Asp Met Ala Arg Thr Pro Thr Gln Glu Gln Leu
    770               775               780

Leu Ala Ala Ala Met Ala Ala Ala Arg Gly Glu Asp Glu Asp Glu Val
785               790               795               800

Ser Glu Ala Gln Glu Thr Pro Asp His Ala Ile Phe Arg Trp Leu Ala
            805               810               815
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Ile Ser Phe Ala Ser Ala His Leu Thr Leu Thr Glu Pro Tyr Arg Gly
        820   825   830

Gly Cys Gln Ala Gln Asp Tyr Thr Gly Gly Met Gly Ile Val Asn Gly
        835   840   845

Ala Lys Trp Asn Pro Arg Thr Gly Thr Ile Asn Asp Phe Ser Tyr Leu
    850   855   860

His Thr Asn Cys Leu Glu Leu Ser Phe Tyr Leu Gly Cys Asp Lys Phe
865   870   875   880

Pro His Glu Ser Glu Leu Pro Arg Glu Trp Glu Asn Asn Lys Glu Ala
            885   890   895

Leu Leu Thr Phe Met Glu Gln Val His Arg Gly Ile Lys Gly Val Val
        900   905   910

Thr Asp Glu Gln Gly Ile Pro Ile Ala Asn Ala Thr Ile Ser Val Ser
        915   920   925

Gly Ile Asn His Gly Val Lys Thr Ala Ser Gly Gly Asp Tyr Trp Arg
    930   935   940

Ile Leu Asn Pro Gly Glu Tyr Arg Val Thr Ala His Ala Glu Gly Tyr
945   950   955   960

Thr Pro Ser Ala Lys Thr Cys Asn Val Asp Tyr Asp Ile Gly Ala Thr
            965   970   975

Gln Cys Asn Phe Ile Leu Ala Arg Ser Asn Trp Lys Arg Ile Arg Glu
        980   985   990

Ile Met Ala Met Asn Gly Asn Arg Pro Ile Pro His Ile Asp Pro Ser
        995   1000   1005

Arg Pro Met Thr Pro Gln Gln Arg Arg Leu Gln Gln Arg Arg Leu
    1010   1015   1020

Gln His Arg Leu Arg Leu Arg Ala Gln Met Arg Leu Arg Arg Leu
    1025   1030   1035

Asn Ala Thr Thr Thr Leu Gly Pro His Thr Val Pro Pro Thr Leu
    1040   1045   1050

Pro Pro Ala Pro Ala Thr Thr Leu Ser Thr Thr Ile Glu Pro Trp
    1055   1060   1065

Gly Leu Ile Pro Pro Thr Thr Ala Gly Trp Glu Glu Ser Glu Thr
    1070   1075   1080

Glu Thr Tyr Thr Glu Val Val Thr Glu Phe Gly Thr Glu Val Glu
    1085   1090   1095

Pro Glu Phe Gly Thr Lys Val Glu Pro Glu Phe Glu Thr Gln Leu
    1100   1105   1110

Glu Pro Glu Phe Glu Thr Gln Leu Glu Pro Glu Phe Glu Glu Glu
    1115   1120   1125

Glu Glu Glu Glu Lys Glu Glu Glu Ile Ala Thr Gly Gln Ala Phe
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Pro Phe Thr Thr Val Glu Thr Tyr Thr Val Asn Phe Gly Asp Phe
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Thr Asn Ser Ser Gln Pro Phe Arg Leu Gly Glu Arg Ser Phe Ser Arg
            35   40   45

Gln Tyr Ala His Ile Tyr Ala Thr Arg Leu Ile Gln Met Arg Pro Phe
    50   55   60

Leu Glu Asn Arg Ala Gln Gln His Trp Gly Ser Gly Val Gly Val Lys
65   70   75   80

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Lys Leu Cys Glu Leu Gln Pro Glu Glu Lys Cys Cys Val Val Gly Thr
              85                      90                  95

Leu Phe Lys Ala Met Pro Leu Gln Pro Ser Ile Leu Arg Glu Val Ser
             100             105             110

Glu Glu His Asn Leu Leu Pro Gln Pro Pro Arg Ser Lys Tyr Ile His
             115             120             125

Pro Asp Asp Glu Leu Val Leu Glu Asp Glu Leu Gln Arg Ile Lys Leu
    130             135             140

Lys Gly Thr Ile Asp Val Ser Lys Leu Val Thr Gly Thr Val Leu Ala
145             150             155             160

Val Phe Gly Ser Val Arg Asp Asp Gly Lys Phe Leu Val Glu Asp Tyr
             165             170             175

Cys Phe Ala Asp Leu Ala Pro Gln Lys Pro Ala Pro Pro Leu Asp Thr
             180             185             190

Asp Arg Phe Val Leu Leu Val Ser Gly Leu Gly Leu Gly Gly Gly Gly
             195             200             205

Gly Glu Ser Leu Leu Gly Thr Gln Leu Leu Val Asp Val Val Thr Gly
    210             215             220

Gln Leu Gly Asp Glu Gly Glu Gln Cys Ser Ala Ala His Val Ser Arg
225             230             235             240

Val Ile Leu Ala Gly Asn Leu Leu Ser His Ser Thr Gln Ser Arg Asp
             245             250             255

Ser Ile Asn Lys Ala Lys Tyr Leu Thr Lys Lys Thr Gln Ala Ala Ser
             260             265             270

Val Glu Ala Val Lys Met Leu Asp Glu Ile Leu Leu Gln Leu Ser Ala
             275             280             285

Ser Val Pro Val Asp Val Met Pro Gly Glu Phe Asp Pro Thr Asn Tyr
    290             295             300

Thr Leu Pro Gln Gln Pro Leu His Pro Cys Met Phe Pro Leu Ala Thr
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Ala Tyr Ser Thr Leu Gln Leu Val Thr Asn Pro Tyr Gln Ala Thr Ile
            325   330   335

Asp Gly Val Arg Phe Leu Gly Thr Ser Gly Gln Asn Val Ser Asp Ile
            340   345   350

Phe Arg Tyr Ser Ser Met Glu Asp His Leu Glu Ile Leu Glu Trp Thr
            355   360   365

Leu Arg Val Arg His Ile Ser Pro Thr Ala Pro Asp Thr Leu Gly Cys
    370   375   380

Tyr Pro Phe Tyr Lys Thr Asp Pro Phe Ile Phe Pro Glu Cys Pro His
385   390   395   400

Val Tyr Phe Cys Gly Asn Thr Pro Ser Phe Gly Ser Lys Ile Ile Arg
            405   410   415

Gly Pro Glu Asp Gln Thr Val Leu Leu Val Thr Val Pro Asp Phe Ser
            420   425   430

Ala Thr Gln Thr Ala Cys Leu Val Asn Leu Arg Ser Leu Ala Cys Gln
            435   440   445

Pro Ile Ser Phe Ser Gly Phe Gly Ala Glu Asp Asp Asp Leu Gly Gly
    450   455   460

Leu Gly Leu Gly Pro
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